

CURRICULUM VITAE

Grace Elizabeth Pluhar, DVM, PhD, Diplomate ACVS

Department of Veterinary Clinical Sciences
College of Veterinary Medicine
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Education:

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| 1978 | BS | Northern Illinois University | DeKalb, Illinois |
| 1979 | MS | Northern Illinois University | DeKalb, Illinois |
| | | Thesis: Factors Affecting the Interconversion of Ornithine Decarboxylase Forms in <i>Physarum polycephalum</i> | |
| 1989 | DVM | Oregon State University | Corvallis, Oregon |
| 1995 | MS | Washington State University | Pullman, Washington |
| | | Thesis: Effect of Acute Unilateral Transverse Venous Sinus Occlusion on Intracranial Pressure in Normal Dogs | |
| 1999 | PhD | University of Wisconsin | Madison, Wisconsin |
| | | Thesis: Comparison of Methods of Soft Tissue Attachment to Proximal Femoral Allografts for Hip Revision | |

Postgraduate Training:

- 1989-1990 Internship, Animal Medical Center, New York, NY
- 1992-1995 Residency, Small Animal Surgery, Washington State University, Pullman, WA
- 1993 AO/ASIF Basic Canine Course, The Ohio State University, Columbus, OH
- 1997 Bone and Hematopoietic and Immune Systems Scientific Workshop, NIH, Bethesda, MD
- 1997 AO/ASIF Advanced Canine Course, The Ohio State University, Columbus, OH
- 1999 Tibial Plateau Leveling Seminar, Slocum Enterprises, Eugene, OR
- 1999 Canine Arthroscopy Course, Colorado State University, Fort Collins, CO
- 2000 SA Circular External Skeletal Fixation, IMEX Veterinary, Inc, Dallas, TX
- 2000 Contemporary Issues in Canine Hip Replacement, San Diego, CA

PLUHAR, G. Elizabeth

2002 Cell-based Treatment and Tissue Engineering, Case Western Reserve University,
Cleveland, OH

2005 Supervisor and Program Director Training, Saint Paul

2005 Dual Energy Xray Absorptiometry (DEXA) Operator Training, Chicago. IL

2005 Competitive Grant Writers' Seminar and Workshop, Minneapolis

2005 ORS/OREF Grant Writing Workshop, Washington, DC

2006 Hill's Canine Osteoarthritis Symposium, Orlando, FL

2007 SAS: Introduction to Programming Concepts, Minneapolis

2007 SAS Programming I: Essentials, Minneapolis

2007 Best Practices Institute: Excellence in Health Professions Education, Minneapolis

2008 Best Practices Institute: Excellence in Health Professions Education, Minneapolis

2009 Skippy Frank Translational Medicine Multidisciplinary Cancer Conference, Palo Alto, CA

2009 Society for CNS Interstitial Delivery of Therapeutics Conference, Cleveland, OH

2009 Faculty Member as Mentor: Best Practices in the Successful Mentoring of Graduate
Students, Minneapolis, MN

2010 Challenges, controversies and opportunities in glioblastoma multiforme: A targeted
perspective, Society for Neuro-Oncology meeting, Montreal, Canada

2011 Brain-Heart Symposium, University of Minnesota, Minneapolis, MN

2011 Good Laboratory Practices Training Course, West Coast Quality Training Institute, Pacific
Rim Consulting, Inc. Minneapolis, MN

2012 CVM Teaching Seminar, Center for Teaching and Learning, Saint Paul, MN.

2013 2nd Skippy Frank Translational Medicine Multidisciplinary Cancer Conference, Palo Alto,
CA

Faculty Appointments/Positions:

1990-1991 Private Practitioner, Heartarrow Veterinary Services, Veradale, WA

1991-1992 Instructor, Community Practice, Department of Veterinary Clinical Sciences
College of Veterinary Medicine, Washington State University

1997 Instructor, Small Animal Orthopedics, Department of Surgical Sciences
School of Veterinary Medicine, University of Wisconsin-Madison

1999-2003 Assistant Professor, Department of Clinical Sciences, College of Veterinary

PLUHAR, G. Elizabeth

Medicine and Biomedical Sciences, Colorado State University

2003- 2008 Assistant Professor, Department of Small Animal Clinical Sciences
College of Veterinary Medicine, University of Minnesota

2004-2006 Consultant, Research and Development
Stryker Biotech, Hopkinton, MA

2004-2012 Consultant, Research and Development
Stryker Orthopaedics, Mahwah, NJ

2006-2012 Consultant, Active Implants Corporation, Memphis, TN
Consultant, Surpass Incorporated, Osceola, WI

2008-present Associate Professor, Department of Veterinary Clinical Sciences
College of Veterinary Medicine, University of Minnesota

2009-2012 Consultant, Denali Medical, Eden Prairie, MN
Consultant, Medtronic, Minneapolis, MN

2012-present Consultant, Invivio Inc., West Conshohocken, PA

Specialty Certification:

1999 Certified, American College of Veterinary Surgeons (ACVS)

Veterinary Licensure:

1989-2002 Washington (Accreditation, 1989)

1989-2000 New York

1997-2003 Wisconsin

2004-present Minnesota

Memberships, Board and Officer Positions in Professional and Scientific Societies:

1989 American Veterinary Medical Association (AVMA)

1993 American Association of Veterinary Clinicians (AAVC)

1999 International Society of Limb Salvage (ISOLS)

1999 Orthopaedic Research Society (ORS)

Membership committee – member (2008-2012), Vice Chair 2009, Chair 2010, ex officio
Chair 2011

PLUHAR, G. Elizabeth

Volunteer Appointment Committee – member (2009-2010)

1999 American College of Veterinary Surgeons (ACVS)

Research committee – member (2007-2010), Assistant Chair 2008-2009, Chair 2009-2010

2000 Veterinary Orthopedic Society (VOS)

Scientific Program committee (2008-2010), Assistant Chair 2008-2009, Chair 2010-2011

2000 American Association for the Advancement of Science (AAAS)

2004 Minnesota Veterinary Medical Association (MVMA)

2005 Cancer Center, University of Minnesota

2005 Biomedical Engineering Institute, University of Minnesota

2011-2014 World Veterinary Orthopedic Conference (WVOC), organizing committee for 2014 meeting, Neurosurgery sessions, Chair

2012-2013 International Conference on One Medicine One Science (iCOMOS). Organizing committee

2012-present Neuro-Oncology Symposium. University of Minnesota, Organizing Committee

2013-present Brain Tumor Program, Executive board, University of Minnesota

2014 Food and Drug Administration, Cellular, Tissue and Gene Therapy Advisory Committee

Awards/Honors:

1977 Phi Sigma, National Biological Sciences Honorary, Northern Illinois University

1993 Dr. Lynn A. George Memorial Scholarship, College of Veterinary Medicine, Washington State University

1994 Phi Kappa Phi, Washington State University

1994 Sigma Xi, Washington State University

1994 1st Place Resident Awards, American College of Veterinary Surgeons, Crystal City, VA

1994 Dr. Lynn A. George Memorial Scholarship, College of Veterinary Medicine, Washington State University

1994 Drs. Ghery Pettit and Jack D. Robinette Surgery Scholarship, College of Veterinary Medicine, Washington State University

1995 Phi Zeta Society, Washington State University

PLUHAR, G. Elizabeth

- 1995 Drs. Ghery Pettit and Jack D. Robinette Surgery Scholarship, College of Veterinary Medicine, Washington State University
- 1997 Travel Scholarship, International Society of Limb Salvage, New York, New York
- 1998 1st Place Pre-Doctoral Abstract Award, 1st Annual Department of Veterans Affairs Rehabilitation Research and Development National Meeting, Washington D.C.
- 1999 Annual Dissertator Travel Award, Animal Health and Biomedical Sciences, University of Wisconsin-Madison
- 1999 Travel Scholarship, International Society for Limb Salvage, Cairns, Australia
- 2000 2nd Place Faculty Oral Presentation, Phi Zeta Research Day, Colorado State University
- 2002 William Harris Award (for outstanding work in orthopaedic research related to the hip), Orthopaedic Research Society and the Harris Fellows Club
- 2003 Who's Who in 20th Century America, Marquis' Who's Who Hall of Fame Inductee, Oak Lawn Community High School, Oak Lawn, IL
- 2003 1st Place Faculty Oral Presentation, Phi Zeta Research Day, Colorado State University
- 2003 1st Place Faculty Poster Presentation, Phi Zeta Research Day, Colorado State University
- 2005 Nomination, McKnight Land-Grant Professorship, University of Minnesota
- 2005 Who's Who in American Women, Marquis' Who's Who
- 2006 Nomination, McKnight Land-Grant Professorship, University of Minnesota
- 2008 Mentor, ---(b)(6)---, Mark S. Bloomberg Resident Research Award, Veterinary Orthopedic Society
- 2008 Promotion to Associate Professor with full tenure
- 2009 MVMA Hero Award to patient, Batman Baker
- 2009 Mark of Excellence Award, College of Veterinary Medicine, University of Minnesota
- 2010 Mentor, ---(b)(6)---, Mark S. Bloomberg Resident Research Award, Veterinary Orthopedic Society
- 2010 Mentor, ---(b)(6)---, Mark S. Bloomberg Resident Research Award, Veterinary Orthopedic Society
- 2010 Resident Publication Award, mentor and co-author to ---(b)(6)---, American College of Veterinary Surgeons
- 2012 Mentor, ---(b)(6)---, Mark S. Bloomberg Resident Research Award, Veterinary Orthopedic Society

2012 Nomination, Emmy Awards, “Dakota’s Brain” 30-minute documentary on a dog with a brain tumor treated in one of our clinical trials

2013 Mentor, ---(b)(6)---, Mark S. Bloomberg Resident Research Award, Veterinary Orthopedic Society

Publications - Original Papers in Refereed Journals:

1. **Kottas (Pluhar) GE**, Mitchell JLA: Osmotically induced modifications of ornithine decarboxylase in *Physarum*. *FEBS Letters* 102(2):265-268, 1979.
2. Gradin JL, Marta KM, **Pluhar GE**, Kaattari SL, Stephens JA, Sonn AE, Smith AW: Monoclonal antibodies against pili of serologically distinct *Bacteroides nodosus*. *Canadian Journal of Veterinary Research* 55(1):117-120, 1991.
3. Gradin JL, Stephens JA, **Pluhar GE**, Marta KM, Smith AW: Diversity of pilin of serologically distinct *Bacteroides nodosus*. *American Journal of Veterinary Research* 52(2):202-205, 1991.
4. Harari J, Tucker RL, Alexander JE, **Pluhar L**, Bagley RS: What’s your diagnosis? Septic arthritis of the coxofemoral joint in a dog. *Journal of the American Veterinary Medical Association* 204(8):1159-1160, 1994.
5. Bagley RS, **Pluhar GE**, Alexander JE: Lateral intervertebral disk extrusion causing lameness in a dog. *Journal of the American Veterinary Medical Association* 205(2):181-185, 1994.
6. Bagley RS, Baszler TV, Harrington ML, **Pluhar GE**, Moore MP, Keegan RD, Greene SA: Clinical effects of longitudinal division of the corpus callosum in normal dogs. *Veterinary Surgery* 24:122-127, 1995.
7. **Pluhar GE**, Memon ME, Wheaton LG: Granulosa cell tumor in an ovariohysterectomized dog. *Journal of the American Veterinary Medical Association* 207(8):1063-1065, 1995.
8. Bagley RS, Harrington ML, **Pluhar GE**, Keegan RD, Greene SA, Moore MP, Gavin PR: Effect of craniectomy/durotomy alone and in combination with hyperventilation, diuretics, and corticosteroids on intracranial pressure in clinically normal dogs. *American Journal of Veterinary Research* 57(1):116-119, 1996.
9. Tobias KT, Barbee D, **Pluhar GE**: Intraoperative use of subtraction angiography and an ultrasonic aspirator to improve identification and isolation of an intrahepatic portosystemic shunt in a dog. *Journal of the American Veterinary Medical Association* 208(6):888-890, 1996.
10. **Pluhar GE**, Bagley RS, Keegan RD, Baszler TV, Moore MP: The effect of acute, unilateral transverse sinus occlusion on intracranial pressure in normal dogs. *Veterinary Surgery* 25(6):480-486, 1996
11. **Pluhar GE**, Tucker RL, Gavin PR, Bagley RS, Takeuchi, M: Cerebral sinus venography in the dog: a new technique. *Veterinary Radiology and Ultrasound* 37(6):112-115, 1997
12. Bagley RS, Harrington ML, **Pluhar GE**, Gavin PR, Moore MP: Acute, unilateral transverse sinus occlusion during craniectomy in seven dogs with space-occupying intracranial disease.

Veterinary Surgery 26(3):195-201, 1997

13. **Pluhar GE**, Thabit G, Klohnen A, Vanderby R, Markel MD: In vitro effects of holmium:YAG laser on caprine stifle retinacular restraints. *Clinical Orthopaedics and Related Research* 356:170-179, 1998
14. Robinson TM, Kruse-Elliott KT, Markel MD, **Pluhar GE**, Massa K, Bjorling DE: A comparison of transdermal fentanyl versus epidural morphine for analgesia in dogs undergoing major orthopedic surgery. *Journal of the American Animal Hospital Association* 35:95-100, 1999
15. **Pluhar GE**, Heiner JP, Manley PA, Bogdanske JJ, Vanderby Jr R, Markel MD: Comparison of three methods of gluteal tendon attachment to an allograft/endoprosthetic composite in a canine model. *Journal of Orthopaedic Research* 18:56-63, 2000
16. Zabka AG, **Pluhar GE**, Manley PA, Hayashi K, Kalscheur VL, Seeherman HJ, Markel MD: Histomorphometric analysis of coupled allograft bone remodeling induced by rh BMP-2 in a canine femoral segmental defect model. *Journal of Orthopaedic Research* 19:318-327, 2001
17. **Pluhar GE**, Manley PA, Heiner JP, Vanderby Jr R, Seeherman HJ, Markel MD: The effect of recombinant human bone morphogenetic protein-2 on femoral reconstruction with an intercalary allograft in a dog model. *Journal of Orthopaedic Research* 19:308-317, 2001
18. Kudnig ST, Fitch RB, **Pluhar GE**, Salman MD: In vitro comparison of the holding power of 1.2 mm, 1.5 mm, and 2.0 mm orthopedic screws placed in unicortical canine radial screw sites. *Veterinary and Comparative Orthopaedics and Traumatology* 15:78-84, 2002
19. Fitch RB, Kerwin S, Hosgood G, Marquis RD, **Pluhar GE**, Kudnig ST: Treatment of mechanically failed triple pelvic osteotomies in four dogs. *Veterinary and Comparative Orthopaedics and Traumatology* 15:172-176, 2002
20. Fitch RB, Kerwin S, Hosgood G, Rooney MB, **Pluhar GE**, Pelsue D: Radiographic evaluation and comparison of triple pelvic osteotomy with and without additional ventral plate stabilization. *Veterinary and Comparative Orthopaedics and Traumatology* 15:164-171, 2002
21. Frankel DJ, **Pluhar GE**, Skurla CP, Egger EL, James SP: Radiographic evaluation of mechanically tested cemented total hip arthroplasty femoral components retrieved post-mortem. *Veterinary and Comparative Orthopaedics and Traumatology* 17(4):216-224, 2004
22. Skurla CP, **Pluhar GE**, Frankel DJ, Egger EL, James SP: Assessing the dog as a model for human total hip replacement: Analysis of 38 postmortem retrieved canine cemented femoral components. *Journal of Bone and Joint Surgery* 87B(1):120-127, 2005
23. Liptak JM, **Pluhar GE**, Dernell WS, Withrow SJ: Limb-sparing surgery in a dog with osteosarcoma of the proximal femur. *Veterinary Surgery* 34:71-77, 2005
24. Nielsen C, **Pluhar GE**: Diagnosis and treatment of hind limb muscle strain injuries in 22 dogs. *Veterinary and Comparative Orthopaedics and Traumatology* 18(4):247-253, 2005
25. Guedes AGP, **Pluhar GE**, Daubs BM, Rudé EP: Evaluation of pre-operative epidural racemic ketamine for post-surgical analgesia in sheep. *American Journal of Veterinary*

Research 67(2):222-229, 2006

26. Reems MR, **Pluhar GE**, Wheeler DL: Ex vivo comparison of one vs. two screws in 8mm interlocking nails to stabilize canine distal femoral fractures. *Veterinary Surgery* 35(2):161-167, 2006
27. Nielsen C, **Pluhar GE**: Outcome following surgical repair of Achilles tendon rupture and comparison between post-operative immobilization methods in dogs: 28 cases (1997-2004). *Veterinary Comparative Orthopaedics and Traumatology* 19(4):246-249, 2006
28. **Pluhar GE**, Turner AS, Toth CA, Pierce A, Wheeler DL: Comparison of two biomaterial carriers for osteogenic protein-1 (OP-1) in a model of ovine critical sized defects. *Journal of Bone and Joint Surgery* 88B(7):960-966, 2006
29. Hammel SP, **Pluhar GE**, Novo RE, Bourgeault CA, Wallace LJ: Fatigue strength analysis of plates used for radial fracture stabilization in small dogs. *Veterinary Surgery* 35:573-578, 2006
30. **Pluhar GE**, Manley PA, Heiner JP, Vanderby Jr R, Markel MD: Gluteal muscle attachment during proximal femoral reconstruction in a canine model. *Journal of Orthopaedic Research* 25(2):208-220, 2007
31. Candolfi M, Kroeger K, **Pluhar GE**, Liu C, Barcia-Gonzalez C, Bergeron J, Puntel M, Curtin J, McNeil EA, Freese AB, Ohlfest JR, Moore P, Kuoy W, Lowenstein PR, Castro MG: Adenoviral mediated gene transfer into the dog brain. *Neurosurgery* 60(1):167-177, 2007
32. Candolfi M, **Pluhar GE**, Kroeger K, Puntel M, Curtin J, Barcia C, Muhammad AKMG, Xiong W, Liu C, Mondkar S, Kuoy W, Kang T, McNeil EA, Freese AB, Moore P, Palmer D, Ng P, Young JD, Lowenstein PR, Castro MG: Optimization of adenoviral vector-mediated transgene expression in the canine brain *in vivo*, and in canine glioma cells *in vitro*. *Neuro-oncology* 9(3):245-258, 2007
33. Santoni BG, **Pluhar GE**, Motta T, Wheeler DL: Hollow calcium phosphate microcarriers for bone regeneration: In vitro osteoproduction and ex vivo biomechanical assessment. *Bio-Medical Materials and Engineering* 17(5):277-289, 2007
34. Oh S, **Pluhar GE**, McNiel EA, Kroeger KM, Castro MG, Lowenstein PR, Freese AB, Ohlfest JR: Efficacy of nonviral gene transfer into the canine brain. *Journal of Neurosurgery* 107(1):136-144, 2007
35. Candolfi M, Curtin JF, Nichols WS, Muhammad AKMG, King GD, **Pluhar GE**, McNeil EA, Ohlfest JR, Freese AB, Moore PF, Lerner J, Lowenstein PR, Castro MG: Intracranial glioblastoma models in preclinical neuro-oncology: neuropathological characterization and tumor progression. *Journal of Neurooncology* 85(2):133-148, 2007

36. Hansen RA, Harris MA, **Pluhar GE**, Motta T, Brevard S, Ogilvie GK, Fettman MJ, Allen KGD: Fish oil decreases matrix metalloproteinases in knee synovia of dogs with inflammatory joint disease. *Journal of Nutritional Biochemistry* 19(2):101-108, 2008
37. Seaman JA, **Pluhar GE**, Rose ND, Weinstein JI, Guo H, Anderson KL: Evaluation of scintigraphy to assess incorporation of intercalary cortical bone grafts in sheep. *American Journal of Veterinary Research* 70(9):1079-1086, 2009
38. Rose BW, **Pluhar GE**, Novo RE, Lunos S: Biomechanical analysis of stacked plating techniques to stabilize distal radial fractures in small dogs. *Veterinary Surgery* 38(8):954-960, 2009
39. **Pluhar GE**, Grogan PG, Seiler C, Goulart M, SantaCruz KS, Carlson C, Chen W, Olin MR, Lowenstein PR, Castro MG, Haines SJ, Ohlfest JR. Anti-tumor immune response correlates with neurological symptoms in a dog with spontaneous astrocytoma treated by gene and vaccine therapy. *Vaccine* 28(19):3371-8, 2010
40. Xiong W, Candolfi M, Liu C, Puntel M, Moore PF, Avalos J, Young JD, Khan D, Donelson R, **Pluhar GE**, Ohlfest JR, Wawrowsky K, Lowenstein PR, and Castro MG: Human Flt3L induces proliferation and differentiation of canine dendritic cells: implications for a dog glioma clinical trial. *PLoS One* 5(6):e11074, 2010
41. Pinel CB, **Pluhar GE**: Clinical application of recombinant human bone morphogenetic protein in cats and dogs: a retrospective review of 13 cases. *Canadian Veterinary Journal* 53(7):767-774, 2012
42. Goulart M, **Pluhar GE**, Ohlfest JR: Identification of myeloid derived suppressor cells in dogs with naturally occurring cancer. *PLoS ONE* 7(3):e33274, 2012
43. Anderson BM, **Pluhar GE**, Seiler CE, Goulart MR, SantaCruz KS, Schutten MM, Meints, JP, O'Sullivan MG, Bentley RT, Packer RA, Thomovsky SA, Chen AV, Faissler D, Hunt MA, Ohlfest JR: Vaccination for invasive canine meningioma induces in situ production of antibodies capable of antibody-dependent cell-mediated cytotoxicity. *Cancer Research*, 73(10):2987-97, 2013.
44. Bentley RT, Ober CP, Anderson KL, Feeney DA, Naughton JF, Ohlfest JR, O'Sullivan MG, Miller MA, Constable PD, **Pluhar GE**: Canine intra-axial primary brain tumors: relationship between magnetic resonance imaging criteria and tumor type and grade. *The Veterinary Journal*, 198(2):463-71, 2013.
45. Murphy KA, **Pluhar GE**, Erickson JR, Johnson CS, Seiler C, Bedi J, Hu P, Epstein AL, Ohlfest JR. CD8+ T cell independent tumor regression induced by Fc-OX40L and therapeutic vaccination in a mouse model of glioma. *The Journal of Immunology*, 192:224-233, 2014.

46. Kiefer K, **Pluhar GE**, Conzemius MG, O'Brien TD. The influence of culture medium type on cellular phenotype of canine adipose derived stem cells. *Open Journal of Regenerative Medicine*, 3:28-37, 2014.
47. Anderson BM, Goulart MR, Olin MR, **Pluhar GE**. Detection of tumor cell surface-reactive antibodies. *Bio-Protocol*, 4(9): epub, 2014.

Manuscripts Submitted or in Preparation:

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Books and Book Chapters:

1. Egger E, **Pluhar GE**. 2010. Enhancement of fracture healing. In: Bojrab MJ & Monnet E, editors. *Disease Mechanisms in Small Animal Surgery* 3rd edition. Philadelphia: Lea & Febiger
2. **Pluhar GE**. 2013. Thermal Pain. In: Griffon D & Hamaide A, editors. *Complications in Small Animal Surgery*. Ames: Wiley-Blackwell

3. **Pluhar GE.** 2013. Fracture Associated Sarcoma. In: Griffon D & Hamaide A, editors. Complications in Small Animal Surgery. Ames:Wiley-Blackwell

Published Abstracts:

1. **Kottas (Pluhar) GE,** Mitchell JLA: Ornithine decarboxylase form interconversion. *Proceedings of the International Congress of Biochemistry*, 1979.
2. Sande RS, Alexander JE, **Pluhar GE,** Tucker RL: Achondrogenesis in an Akita: A spontaneous mutation. *Proceedings of the International Veterinary Radiology Society*, 1994.
3. **Pluhar GE,** Bagley RS, Keegan RD, Moore MP: Effects of acute, unilateral transverse venous sinus occlusion on intracranial pressure in normal dogs. *Veterinary Surgery* 23(5):425, 1994.
4. Bagley RS, Harrington ML, **Pluhar GE,** Keegan RD, et al: The effect of craniectomy/durotomy, alone or in combination with hyperventilation, diuretics and corticosteroids, on intracranial pressure in normal dogs. *Journal of Veterinary Internal Medicine* 9:191, 1995.
5. **Pluhar GE,** Thabit G, Klohn A, Warner C, Obrzut SL, Vanderby R, Markel MD: Lateral release and medial joint capsular modification of the patellofemoral joint using the Holmium:YAG laser. *Proceedings of the Orthopaedic Research Society*, 1997.
6. **Pluhar GE,** Heiner JP, Manley PA, Bogdanske JJ, Markel MD: Comparison of three methods of gluteal tendon attachment to an allograft/endoprosthetic composite in total hip arthroplasty: Nine month radiographic and force plate data. *Veterinary Surgery* 26(5):424, 1997.
7. **Pluhar GE,** Heiner JP, Manley PA, Bogdanske JJ, Markel MD: Comparison of three methods of gluteal tendon attachment to an allograft/endoprosthetic composite of the proximal femur in an *in vivo* canine model. *Proceedings of the Connective Tissue Oncology Society*, 1997.
8. **Pluhar GE,** Manley PA, Heiner JP, Bogdanske JJ, Vanderby Jr R, Markel MD: Comparison of three methods of tendon attachment to an allograft/endoprosthetic composite of the proximal femur in an *in vivo* canine model. *Proceedings of the Orthopedic Research Society*, 1998.
9. **Pluhar GE,** Manley PA, Bogdanske JJ, Heiner JP, Vanderby Jr R, Markel MD: Comparison of three methods of gluteal tendon attachment to an allograft/endoprosthetic composite during total hip replacement. *Veterinary Surgery* 27(5):528, 1998.
10. **Pluhar GE,** Manley PA, Heiner JP, Bogdanske JJ, Day DK, Hayashi K, Devitt JJ, Vanderby Jr R, Seeherman HJ, Markel MD. The effect of rhBMP-2 on femoral reconstructions with intercalary allografts. *Proceedings of the Orthopedic Research Society*, 1999.
11. **Pluhar GE,** Manley PA, Heiner JP, Bogdanske JJ, Vanderby Jr R, Markel MD. Hip reconstruction with an allograft/endoprosthetic composite in dogs: Long term results. *Proceedings of the Orthopedic Research Society*, 1999.

12. **Pluhar GE**, Heiner JP, Manley PA, Vanderby Jr R, Seeherman HJ, Markel MD. The effect of rhBMP-2 on femoral reconstructions with intercalary allografts. *Proceedings of the International Society of Limb Salvage*, 1999.
13. Heiner JP, **Pluhar GE**, Manley PA, Bogdanske JJ, Day DK, Hayashi K, Devitt JJ, Seeherman HJ, Vanderby Jr. R, Markel MD. . The effect of rhBMP-2 on femoral reconstructions with intercalary allografts. *Proceedings of the Musculoskeletal Tumor Society*, 1999.
14. Zabka AG, **Pluhar GE**, Manley PA, Hayashi K, Kalscheur VL, Seeherman HJ, Markel MD. Coupled allograft bone remodeling induced by bone morphogenetic protein-2 in a canine femoral segmental defect model. *Veterinary Surgery* 28(5):414, 1999.
15. **Pluhar GE**, Manley PA, Heiner JP, Bogdanske JJ, Day DK, Hayashi K, Devitt JJ, Seeherman HJ, Vanderby Jr. R, Markel MD. Augmentation of femoral reconstructions with intercalary allografts using bone morphogenetic protein. *Veterinary Surgery* 28(5):402, 1999.
16. Zabka AG, **Pluhar GE**, Manley PA, Hayashi K, Edwards III R, Heiner JP, Kalscheur VL, Seeherman HJ, Markel MD. Recombinant human bone morphogenetic protein-2 induces coupled allograft bone remodeling in a femoral segmental defect using a canine model. *Proceedings of the Orthopaedic Research Society*, 2000.
17. James SP, Skurla C, Wheeler DL, **Pluhar GE**. Long-term wear and mechanical stability analysis of 38 post-mortem retrieved canine total hip replacements. *Proceedings of the Orthopaedic Research Society*, 2002.
18. Rooney MB, Kudnig ST, Frankel DJ, Reems MR, Fitch RB, **Pluhar GE**. Determination of the association between tibial plateau angle and cranial cruciate ligament rupture in the dog. *Proceedings of the Veterinary Orthopaedic Society*, 2002.
19. Wheeler DL, Liu C, James SP, Gearen P, Myers S, **Pluhar GE**. Antimicrobial efficacy of eluted tobramycin and vancomycin from bone cement: Effects of antibiotic particle size. *Proceedings of the Society for Biomaterials*, 2002.
20. Wheeler DL, Liu C, James SP, Gearen P, Myers S, **Pluhar GE**. Effects of antibiotic particle size on elution characteristics from bone cement. *Proceedings of the Society for Biomaterials*, 2002.
21. Skurla CP, James SP, Wheeler DL, **Pluhar GE**. A novel method for assessing mechanical stability of acetabular components: Results from 38 postmortem retrieved canine implants. *Proceedings of the Orthopaedic Research Society*, 2003.
22. Santoni BG, **Pluhar GE**, Koenig AL, Motta T, Wheeler DL. Calcium phosphate microcarriers for bone regeneration: In vitro osteoproduction and ex vivo biomechanical assessment. *Proceedings of the Orthopaedic Research Society*, 2003.
23. Line BG, **Pluhar GE**, Turner AS, Toth CA, Wheeler DL. Structural and material properties of OP-1 healed tibiae. *Proceeding of the Orthopaedic Research Society*, 2003.
24. **Pluhar GE**, Turner AS, Toth CA, Friedlander G, Wheeler DL. Comparison of OP-1 carriers for healing of tibial diaphyseal defects in an ovine model. *Proceedings of the Orthopaedic*

Research Society, 2003.

25. Read JL, Berrey BH, Scarborough MT, Enneking W, **Pluhar GE**, Wheeler DL. Material properties of retrieved massive allograft cortical bone. *Proceedings of the Orthopaedic Research Society*, 2003.
26. Skurla CP, James SP, **Pluhar GE**. Long-term wear damage analysis of 38 postmortem retrieved canine total hip replacements. *Proceedings of the Orthopaedic Research Society*, 2003.
27. Wheeler DL, **Pluhar GE**, Turner AS, Toth CA, Friedlander G. Healing of large segmental tibial defects with OP-1 putty in an ovine model. *Proceedings of the American Academy of Orthopaedic Surgeons*, 2003.
28. Reems MR, **Pluhar GE**, Landmann B, Wheeler DW. Ex vivo comparison of the model 11 versus model 22 interlocking nail systems to stabilize distal canine femoral fractures. *Proceedings of the Veterinary Orthopedic Society*, 2003.
29. Reems MR, **Pluhar GE**, Landmann B, Wheeler DW. Ex vivo comparison of one versus two distal screws in 8mm interlocking nails to stabilize mid-diaphyseal canine tibial fractures. *Proceedings of the Veterinary Orthopedic Society*, 2003.
30. Frankel DJ, Skurla C, Egger EL, **Pluhar GE**. Biomechanical and radiographic evaluation of total hip arthroplasty femoral components retrieved post-mortem. *Proceedings of the Veterinary Orthopedic Society*, 2003.
31. Reems MR, **Pluhar GE**, Wheeler DW. Ex vivo comparison of one versus two distal screws in 8mm interlocking nails to stabilize mid-diaphyseal canine tibial fractures. *Veterinary Surgery* 32(5):494, 2003.
32. Reems MR, **Pluhar GE**, Wheeler DW. Ex vivo comparison of the model 11 versus model 22 interlocking nail systems to stabilize distal canine femoral fractures. *Veterinary Surgery* 32(5):494, 2003.
33. Frankel DJ, Skurla C, Egger EL, **Pluhar GE**. Mechanical and radiographic evaluation of total hip arthroplasty femoral components retrieved post-mortem. *Veterinary Surgery*, 32(5):486, 2003.
34. Wheeler DW, Jackinsky SW, Mohr KE, **Pluhar GE**, Turner AS, Toth CA. Osteogenic protein-1 (OP-1/BMP-7) enhanced cement as an OP-1 carrier for healing of tibial diaphyseal defects in an ovine model. *Proceedings of the Orthopaedic Research Society*, 2004.
35. Wheeler DW, Jackinsky SW, Mohr KE, Eschbach E, **Pluhar GE**, Turner AS, Toth CA. TCP putty as an osteogenic protein-1 carrier for healing of tibial diaphyseal defects in an ovine model. *Proceedings of the Orthopaedic Research Society*, 2004.
36. Wheeler DW, Jackinsky SW, Mohr KE, Eschbach E, **Pluhar GE**, Turner AS, Toth CA. Tricalcium phosphate putty as an osteogenic protein-1 (OP-1/BMP-7) carrier for healing of tibial diaphyseal defects in an ovine model. *Proceedings of the World Congress of Biomaterials*, 2004.
37. Skurla CP, Wheeler DJ, **Pluhar GE**, James SP. Post-Mortem retrieval of 38 canine THRs

with implant durations up to 11.7 years: The dog as a model for human THR. *Transactions of the 7th World Biomaterials Congress*, 2004: 548.

38. **Pluhar GE.** Study of retrieved canine cemented total hip implants. *Proceedings of the Annual Symposium of the American College of Veterinary Surgeons*, 2004. pp. 285-288.
39. **Pluhar GE.** Orthopedic applications of mesenchymal stem cells. *Proceedings of the Annual Symposium of the American College of Veterinary Surgeons*, 2004. pp. 326-328.
40. **Pluhar GE.** Delivery of osteogenic protein-1 in tricalcium phosphate cement: An ovine tibial osteotomy study. *Proceedings of the 1st Annual Current Topics in Orthopaedic Research Seminar*, 2004.
41. **Pluhar GE.** Interlocking nailing for small animal fracture fixation. *Proceedings of the 108th Annual Meeting of the Minnesota Veterinary Medical Association*, 2005.
42. Nielsen C, **Pluhar GE.** Hip adductor muscle injuries in 22 dogs. *Proceedings of the Veterinary Orthopedic Society*, 2005.
43. **Pluhar GE,** Liptak JM, Manley PA, Heiner JP, Markel MD. Treatment of proximal femoral osteosarcoma with allograft-prosthetic composites. *Proceedings of the Veterinary Orthopedic Society*, 2005.
44. **Pluhar GE.** Basic nomenclature of external skeletal fixation and biomechanics. *Proceedings of 142nd Annual Convention of the American Veterinary Medical Association and 28th World Veterinary Congress*, 2005.
45. **Pluhar GE.** Diagnosis and treatment of iliopsoas injuries. *Proceedings of the Annual Symposium of the American College of Veterinary Surgeons*, 2005. pp. 343-345.
46. **Pluhar GE.** Biostimulation of fracture healing. *Proceedings of the Annual Symposium of the American College of Veterinary Surgeons*, 2005. pp. 266-269.
47. **Pluhar GE.** Importance of periosteal removal on critical size defect healing. *Proceedings of the 2nd Annual Current Topics in Orthopaedic Research Seminar*, 2005.
48. Nielsen C, **Pluhar GE.** Outcome following surgical repair of Achilles tendon rupture: 30 cases in 28 dogs (1997-2004). *Veterinary Surgery* 34(4):E18, 2005.
49. **Pluhar GE.** Biomechanics of interlocking nails. *Proceedings of the 109th Annual Meeting of the Minnesota Veterinary Medical Association*, 2006.
50. **Pluhar GE.** Results and complications of ILN use. *Proceedings of the 109th Annual Meeting of the Minnesota Veterinary Medical Association*, 2006.
51. **Pluhar GE,** Wheeler DL, Toth CA. Importance of periosteum removal on critical sized defect healing. *Proceedings of the Orthopaedic Research Society*, 2006.

52. **Pluhar GE**. Clinical use of osteogenic protein-1 in veterinary delayed/non union fractures. *Veterinary and Comparative Orthopaedics and Traumatology* 19(3):A27-28, 2006.
53. Candolfi M, Curtin J, King GD, **Pluhar GE**, McNiel E, Ohlfest JR, Freese AB, Moore PF, Nichols SW, Lowenstein PR, Castro MG. Glioblastoma multiforme (GBM): a comparative histological analysis of gliomas in mice, rats, dogs and humans. *Abstracts of the American Association for Cancer Research Meeting*, Apr 2006: 642.
54. **Pluhar GE**. Importance of periosteal removal on critical size defect healing. *Veterinary and Comparative Orthopaedics and Traumatology* 19(3):A28, 2006.
55. **Pluhar GE**. Importance of periosteal removal on critical size defect healing. *Veterinary Surgery* 35(6):E21, 2006.
56. **Pluhar GE**. Clinical use of osteogenic protein-1 in veterinary delayed/non union fractures. *Veterinary Surgery* 35(6):E21, 2006.
57. Robinson DA, **Pluhar GE**, Hart A, Evans R, Conzemius MG. Force platform gait analysis to characterize lameness associated with sodium urate induced synovitis. *Proceedings of the 34th Annual Meeting of the Veterinary Orthopedic Society*, 2007.
58. Candolfi M, Curtin J, Nichols W, Muhammad A, Puntel M, King G, Xiong W, Kroeger K, Barcia C, Liu C, Mondkar S, **Pluhar G**, McNiel E, Ohlfest J, Freese A, Moore P, Palmer D, Ng P, Young J, Lowenstein P, Castro M. The canine spontaneous glioblastoma as preclinical large animal model for brain cancer gene therapy. *Abstracts of the American Association for Cancer Research Meeting*, Apr 2007: 4135.
59. **Pluhar GE**, Seaman JA, Anderson KL. Nuclear scintigraphy is not a sensitive measure of bone graft incorporation. *Proceedings of the 34th Annual Meeting of the Veterinary Orthopedic Society*, 2008.
60. **Pluhar GE**, Tchernatynskaia AV, Olin MR, Long C, Grogan PT, Ohlfest JR. Feasibility studies to target brain tumor initiating cells using immunotherapy in dogs with spontaneous glioma. *Abstracts of the Society for Neuro-Oncology Meeting*, Nov 2008: 178.
61. Ngo C, Zhang R, Kulesha G, Zitelli J, Hawkins M, **Pluhar GE**. Effect of Surface Treatment on Bone In-growth into Porous Titanium Using a Canine THA Model. *Proceedings of the Orthopaedic Research Society*, 2009.
62. **GE Pluhar**, Zhang R, Conzemius MG, Ngo C, Kulesha G, Hawkins M, Murray N, Zitelli J. Tritanium™ induces rapid bone ingrowth in a canine hip arthroplasty model. *Proceedings of the Orthopaedic Research Society*, 2009.
63. **Pluhar GE**, Battjes E, Nielsen C. Intraarticular hyaluronic acid increases weight bearing in dogs with elbow OA. *Proceedings of the 35th Annual Meeting of the Veterinary Orthopedic Society*, 2009.

64. Rose BW, **Pluhar GE**, Novo RE, Lunos S. Fatigue Analysis For Stack Plating. *Proceedings of the Symposium of the American College of Veterinary Surgeons*, 2009.
65. **Pluhar GE**, Chen W, Grogan PT, Seiler C, Bedi JJ, Olin M, Carlson CS, SantaCruz KA, Castro MG, Lowenstein P, Haines S, Hunt M, Ohlfest JR. Tumor responses in dogs with spontaneous astrocytoma and papillary meningioma treated by immunotherapy. *Abstracts of the Society for Neuro-Oncology Meeting*, 2009.
66. Kiefer K, Conzemius M, **Pluhar GE**, O'Brien T, Clarkson C. Expression of inflammatory mediators in canine adipose and bone marrow derived stem cell populations as a function of cell culture. *Proceedings of the 37th Annual Meeting of the Veterinary Orthopedic Society*, 2010.
67. **Pluhar GE**. Successful submissions: mastering the research grant proposal process. *Proceedings of the Symposium of the American College of Veterinary Surgeons*, 2010.
68. **Pluhar GE**. Acetabular fractures. *Proceedings of the 3rd Annual Meeting of the World Veterinary Orthopedic Congress*, 2010.
69. **Pluhar GE**. Ulnar osteotomy. *Proceedings of the 3rd Annual Meeting of the World Veterinary Orthopedic Congress*, 2010.
70. Anderson BM, **Pluhar GE**, Hunt MA, Gallardo JL, Seiler, C, Ohlfest JR. Immunotherapy of spontaneous canine meningioma: A preclinical model. *Abstracts of the Society for Neuro-Oncology Meeting*, Nov 2010.
71. Olin MR, Anderson BM, **Pluhar GE**, Grogan PT, Hunt MA, Popescu FE, Xiong ZL, Seiler C, Forster CL, SantaCruz KS, Chen W, Blazar BR, Ohlfest JR. Glioma cells cultured in 5% oxygen enhance the efficacy of tumor cell vaccination in a toll-like receptor 2-dependent manner. *Abstracts of the Society for Neuro-Oncology Meeting*, Nov 2010.
72. **Pluhar GE**. Professional Development Series: Launching your Career. Nailing the Interview. *Proceedings of the Orthopaedic Research Society*, January 2011.
73. **Pluhar GE**. Fracture session: Introductory Case Presentation. *Proceedings of the 38th Annual Meeting of the Veterinary Orthopedic Society*, March 2011.
74. **Pluhar GE**. Clinical Trials for Dogs with Glial Tumors: Beyond Batman. *Proceedings of the Neurology Specialty Symposium of the American College of Veterinary Internal Medicine*, June 2011.
75. Pan H, Luangphakdy V, Shinohara K, Boehm C, Wenke J, **Pluhar GE**, Bechtold J, Muschler G. Bone regeneration strategies in a chronic caprine tibial defect model. *Proceedings of the Advanced Technology Applications for Combat Casualty Care Meeting*, August 2011.

76. Hunt MA, **Pluhar GE**, Andersen BM, Gallardo JL, Seiler CE, Ohlfest JR. Surgery Plus Immunotherapy is Superior to Surgery Alone for Control of Spontaneous Canine Meningiomas. *Proceedings of the Annual Meeting of the Congress of Neurological Surgeons*, October 2011.
77. **Pluhar GE**. Technique of Interlocking Nail Fixation. *Proceedings of the Symposium of the American College of Veterinary Surgeons*, November 2011.
78. **Pluhar GE**. Interlocking Nail Instrumentation. *Proceedings of the Symposium of the American College of Veterinary Surgeons*, November 2011.
79. Hunt MA, **Pluhar GE**, Andersen BM, Gallardo JL, Seiler CE, SantaCruz KS, Ohlfest JR. Surgery and Immunotherapy Improves Survival over Surgery Alone for Canine Meningiomas. *Abstracts of the Society for Neuro-Oncology Meeting*, Nov 2011.
80. **Pluhar GE**, Muschler G, Pan H, Luangphakdy V, Shinohara K, Boehm C, Wenke J, Bechtold J, Nicholson A. Development of a chronic caprine tibial defect model. *Proceedings of the Armed Forces Institute of Regenerative Medicine All Hands Meeting*, February 2012.
81. Kiefer K, O'Brien T, **Pluhar GE**, Conzemius MG. The influence of culture medium conditions on canine adipose derived stem cells. *Proceedings of the 39th Annual Meeting of the Veterinary Orthopedic Society*, March 2012.
82. **Pluhar GE**. Canines curing cancer: Transforming brain tumor therapy. *Proceedings of the 1st Annual Neuro-Oncology Symposium*, May 2012.
83. **Pluhar GE**. Technique of Interlocking Nail Fixation. *Proceedings of the Symposium of the American College of Veterinary Surgeons*, October 2012.
84. **Pluhar GE**. Interlocking Nail Instrumentation. *Proceedings of the Symposium of the American College of Veterinary Surgeons*, October 2012.
85. Andersen BM, **Pluhar GE**, Seiler CE, Xiong Z, Goulart MR, Zhang Z, O'Sullivan MG, Hunt MA, Schiaffo CE, Ferguson DE, Ohlfest JR. Preclinical testing of three toll-like receptor ligands in vaccination therapy for invasive canine meningioma. *Proceedings of the American Association of Cancer Research Tumor Immunology Conference*, December 2012.
86. Goulart MR, **Pluhar GE**, Andersen BM, Seiler CE, Hunt MA, Zhang ZM, O'Sullivan MG, Johnson C, Ohlfest JR. Immunotherapy as treatment for dogs with glioma. *Proceedings of the American Association of Cancer Research Tumor Immunology Conference*, December 2012.
87. **Pluhar GE**, Nicholson A, Muschler G, Luangphakdy V, Bechtold J, Boehm C, Carlson C, Pan H, Shinohara K, Wenke J. Development of a chronic caprine tibial defect model. *Proceedings of the Orthopaedic Research Society*, January 2013.

88. **Pluhar GE.** Canines Curing Cancer: Transforming Brain Tumor Therapy. *Skippy Frank Comparative Translational Medicine Conference*, February 2013.
89. Kiefer K, Wucherer KL, **Pluhar GE**, Conzemius MG. Autologous and allogeneic stem cells as adjuvant therapy for osteoarthritis caused by spontaneous fragmented coronoid process in dogs. *Proceedings of the 40th Annual Meeting of the Veterinary Orthopedic Society*, March 2013.
90. Kiefer K, Conzemius MG, **Pluhar GE**. Canine adipose derived stem cell viability following exposure to synovial fluid from osteoarthritic joints. *Proceedings of the 40th Annual Meeting of the Veterinary Orthopedic Society*, March 2013.
91. **Pluhar GE.** Autologous vaccine therapy to control invasive canine meningioma. *Proceedings of the AANS/CNS 10th Biennial Satellite Tumor Symposium*, April 2013.
92. **Pluhar GE.** Canine Glioma Clinical Trials Experience at the University of Minnesota. *Proceedings 2nd Bi-Annual Veterinary Neurosurgical Society Symposium*, Portland, OR. August 2013.
93. **Pluhar GE.** Surgery/immunotherapy improves survival over surgery alone to treat canine meningioma. *Proceedings 2nd Bi-Annual Veterinary Neurosurgical Society Symposium*, Portland, OR. August 2013.
94. Goulart MR, Andersen BM, Seiler CE, Hunt MA, Zhang Z, O'Sullivan MG, Johnson C, Ohlfest JR, Olin M, **Pluhar GE**. Vaccination with autologous glioma lysate induces tumor-reactive IgG antibody response and increases survival in dogs with glioma. *Proceedings of the 15th International Congress of Immunology*. Milan, Italy, August 2013.
95. **Pluhar GE.** Characterization of a chronic tibial defect model in goats. *Proceedings Military Health System Research Symposium*, Ft. Lauderdale, FL. August 2013.
96. **Pluhar GE.** Vaccine immunotherapy for canine meningioma: Clinical and translational aspects. *Proceedings 2nd Neuro-Oncology Symposium*, Minneapolis, MN, September 2013.
97. Goulart MR, Andersen BM, Seiler CE, Hunt MA, Zhang Z, O'Sullivan MG, Johnson C, Ohlfest JR, Olin M, **Pluhar GE**. Vaccination with autologous glioma lysate induces tumor-reactive IgG antibody response and increases survival in dogs with glioma. *Proceedings 2nd Neuro-Oncology Symposium*, Minneapolis, MN, September 2013.
98. **Pluhar GE.** Immunotherapy of canine meningioma. *Proceedings of the Symposium of the American College of Veterinary Surgeons*, San Antonio, TX. October 2013.
99. **Pluhar GE.** Surgery and immune/gene therapy for canine gliomas. *Proceedings of the Symposium of the American College of Veterinary Surgeons*, San Antonio, TX, October 2013.

100. **Pluhar GE**. Imaging of brain tumors. *Proceedings of the Symposium of the American College of Veterinary Surgeons*, San Antonio, TX, October 2013.
101. **Pluhar GE**, Nicholson A, Muschler G, Luangphakdy V, Bechtold J, Boehm C, Carlson C, Pan H. Development of a Caprine Chronic Tibial Defect Model. *Proceedings of the 41st Annual Meeting of the Veterinary Orthopedic Society*, March 2014.
102. Boehm C, Zaveri P, Luangphakdy L, **Pluhar GE**, Carlson C, Muschler GF. Cellular and Histological Analyses of Induced Membrane Produced in a Caprine Chronic Tibial Defect Model. *Proceedings of the 41st Annual Meeting of the Veterinary Orthopedic Society*, March 2014.
103. Boehm C, Luangphakdy V, Pan H, Shinohara K, MD, Nicholson A, Bechtold J, Carlson C, Pluhar GE, Muschler G. Comparison of Bone Marrow Aspiration Site Options in the Spanish Boer Goat – Part of Development of a Rigorous Caprine Tibial Defect Model. *Proceedings of the 41st Annual Meeting of the Veterinary Orthopedic Society*, March 2014.

Grants, Contracts, and Other Funding:

- 1993-1994 **Pluhar GE**, Co-investigator. College of Veterinary Medicine Intramural Grants, Washington State University. The Effect of Acute, Unilateral Transverse Sinus Occlusion and Shunting on Intracranial Pressure in Normal Dogs, funded.
- 1996-1999 **Pluhar GE**, Principal Investigator. National Research Service Award, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health. Soft Tissue Attachment of Gluteal Musculature to Allografts in Canine Hip Replacement, funded.
- 2000-2001 **Pluhar GE**, Co-investigator. Depuy, Inc. -----(b)(4)-----, phase II: Elution characteristics, phase III: Particle size characterization, funded.
- 2000-2001 **Pluhar GE**, Primary Investigator. Colorado State University, College Research Council, \$(b)(4),(b)(6). The Effects of N-3 Long Chain Polyunsaturated Fatty Acids (fish oil) on MMP-3 and MMP-8 in Canine Osteoarthritis, funded.
- 2000-2001 **Pluhar GE**, Co-investigator. Ralston Purina Company. The Effects of N-3 Long Chain Polyunsaturated Fatty Acids on Inflammatory Mediators and Matrix Metalloproteinase Levels in Dogs with Osteoarthritis after Surgical Correction of Acute Anterior Cruciate Ligament Rupture, funded.
- 2001-2001 **Pluhar GE**, Co-investigator. Stryker Biotech. -----(b)(4)-----
-----: An Ovine Tibial Ostectomy Study, funded.
- 2001-2002 **Pluhar GE**, Principal Investigator. Colorado State University, College Research Council. Postmortem Evaluation of the Stability of Canine Cemented Hip Replacement Implant Wear to Determine Success Rate and Mechanisms of Failure, funded.
- 2001-2002 **Pluhar GE**, Co-investigator. Stryker Biotech. Healing of Large Segmental Tibial

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Defects with (b)(4): An Ovine Equivalency Study, funded.

2001-2002 **Pluhar GE**, Investigator. US Biomaterials Corp. Comparison of Bioactive Bone Graft Materials against Industry Standards in Rabbits, funded.

2002-2003 **Pluhar GE**, Principal Investigator. Colorado State University, College Research Council. Effects of dietary fish oil supplementation via caplets on serum/plasma levels of matrix metalloproteinases and lameness in dogs with osteoarthritis, funded.

2002-2003 **Pluhar GE**, Principal Investigator. Hohn-Johnson Research Award, Veterinary Orthopedic Society. Ex vivo biomechanical testing of modifications to an interlocking nailing system for fixation of unstable canine long bone fractures, funded.

2002-2003 **Pluhar GE**, Co-investigator. Colorado Commission on Higher Education Grant. -----
----- (b)(4) -----
-----, funded.

2002-2003 **Pluhar GE**, Co-Principal investigator. Stryker Biotech. Delivery of --- (b)(4) -----
-----: An Ovine Tibial Osteotomy Study, funded.

2003-2004 **Pluhar GE**, Principal Investigator. Musculoskeletal Transplant Foundation. Assessment of intercalary allograft incorporation with ⁹⁹TcHDP scans in an ovine model, funded.

2003-2004 **Pluhar GE**, Co-Investigator. Musculoskeletal Transplant Foundation. Physical characteristics of retrieved massive allografts, funded.

2003-2008 **Pluhar GE**, Training Faculty. National Institutes of Health, NCRR, T32 RR 018719. Comparative Medicine and Pathology Training Grant, funded.

2004-2005 **Pluhar GE**, Principal Investigator. Musculoskeletal Transplant Foundation. Assessment of intercalary allograft incorporation with ⁹⁹TcHDP scans in an ovine model, funded.

2004-2009 **Pluhar GE**, Training Faculty. National Institutes of Health, NIAMS, T32 AR050938. Musculoskeletal Training Grant, funded.

2005 **Pluhar GE**, Principal Investigator. Stryker Orthopaedics. Measurement of bone defect volume adjacent to acetabular components: A sheep cadaver reproducibility study, funded.

2005 **Pluhar GE**, Principal Investigator. Hohn-Johnson Research Award, Veterinary Orthopedic Society. Torsional laxity of the canine interlocking nailing system: the effects of locking mechanism and nail hole tolerance. Not funded.

2005 **Pluhar GE**, Principal Investigator. AO North America Resident Trauma Research Support. Fatigue strength analysis of plates used for radial fracture stabilization in small dogs, funded.

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2005-2006 **Pluhar GE**, Principal Investigator. Intramural Funds, Department of Neurosurgery, University of Minnesota. Gene therapy for canine brain tumors, funded.

2005-2006 **Pluhar GE**, Principal Investigator. Anika Therapeutics. Evaluation of --(b)(4)-----
----- for the treatment of canine elbow
osteoarthritis, funded.

2006 **Pluhar GE**, Principal Investigator. Goldhirsh Foundation. Validation and Characterization of Dogs with Spontaneous Gliomas as a Superior Preclinical Model for Human Glioblastoma Multiforme. Not funded.

2006 **Pluhar GE**, Principal Investigator. Academic Health Center Faculty Research Development Grant, University of Minnesota. Promoting dogs with spontaneous brain tumors as a translational model for novel therapies. Not funded.

2006 **Pluhar GE**, Principal Investigator. Department of Defense. Healing of critical size defects with allograft or bone substitute supplemented with BMP-2 +/- bone marrow aspirate. Not funded.

2006 **Pluhar GE**, co-Investigator. Hohn-Johnson Research Award, Veterinary Orthopedic Society. Biofilm prevention using -----(b)(4)----- implants. Not funded.

2006-2007 **Pluhar GE**, Principal Investigator. Stryker Orthopedics. Evaluation of bone response on porous surfaces using a canine total hip model, funded.

2006-2007 **Pluhar GE**, Principal Investigator. Bayer Healthcare. Dose determination of a novel
------(b)(4)----- model in dogs, funded.

2006-2007 **Pluhar GE**, co-Principal Investigator. Fort Dodge Animal Health. Multi-center clinical efficacy and safety study of -----(b)(4)-----
-----, funded.

2007 **Pluhar GE**, co-Principal Investigator. UMN CVM Small Companion Animal Research Grant. Fatigue analysis for stack plating techniques to stabilize radial fractures in small dogs, funded.

2007 **Pluhar GE**, co-Principal Investigator. AO North America Resident Trauma Research Support. Fatigue analysis for stack plating techniques to stabilize radial fractures in small dogs, funded.

2007 **Pluhar GE**, co-Principal Investigator. UMN CVM Small Companion Animal Research Grant. Effect of interlocking use for fracture fixation in skeletally immature animals. Submitted November 2007. Not funded.

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2007 **Pluhar GE**, co-Principal Investigator. UMN CVM Small Companion Animal Research Grant. Efficacy of -----(b)(4)----- for pain relief in dogs with elbow OA. Submitted November 2007. Not funded.

2006 **Pluhar GE**, co-Investigator. Academic Health Center Faculty Seed Grant, University of Minnesota. -----(b)(4)----- therapy in canine hip osteoarthritis. Submitted April 2008, Not funded.

2006 -----(b)(4)-----

2008-2009 **Pluhar GE**, Principal Investigator. University of Minnesota Brain Tumor Program. Understanding immunotherapy for canine glioma patients, funded.

2008-2009 **Pluhar GE**, co-Principal Investigator. Randy Shaver Foundation. Immunotherapy for canine glioma, funded.

2008-2010 **Pluhar GE**, co-Investigator. University of Minnesota subcontract. National Institutes of Health, 1 R43 NS061364-01A1, \$384,076, UMN subcontract. Hollow fiber catheters for drug delivery into the brain, funded.

2006 **Pluhar GE**, co-Principal Investigator. Department of Defense. Effect of immediate wound antibiotic loading on wound healing and osteomyelitis. Not funded.

2009 **Pluhar GE**, co-Investigator. National Institutes of Health, NCI, 5 R01 CA10863. Experimental therapeutics for brain cancer. Not funded.

2009-2010 **Pluhar GE**, Principal Investigator. University of Minnesota Brain Tumor Program. Understanding immunotherapy for canine glioma patients, funded.

2009-2012 **Pluhar GE**, Principal Investigator. University of Minnesota subcontract. National Institutes of Health, NINDS, 1 U01 NS052465-01A2. UMN subcontract, \$ 427,007. Treatment of glioma, funded.

2009-2013 **Pluhar GE**, Principal Investigator. American Cancer Society, -----(b)(4)-----
----- cells in enhancing brain tumor immunotherapy, funded.

2010 **Pluhar GE**, co-Investigator. National Institutes of Health, NIAMS, AR11-004. Biophysical signals, biomaterial surface characteristics and hMSC differentiation. Not funded.

2010 **Pluhar GE**, co-Investigator. National Institutes of Health, NIBIB, RFA-OD-09-003. In vivo imaging of cartilage biomarker molecules by nanoprobe-based MRI. Not funded.

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- 2010 **Pluhar GE**, co-Investigator. National Institutes of Health, CBNT, PA-10-067.
Experimental therapeutics for brain cancer. Submitted July 2010, Not funded.
- 2011-2013 **Pluhar GE**, Principal Investigator. Allergan Research Grants. Does ----(b)(4)-----
----- relieve joint pain in dogs with elbow osteoarthritis? funded.
- 2010-2013 **Pluhar GE**, Principal Investigator. National Institutes of Health, CNBT, 5R21
NS070955. Understanding and enhancing mechanisms of priming in cancer
immunotherapy, funded.
- 2010-2011 **Pluhar GE**, co-Principal Investigator. American Brain Tumor Association.
Immunotherapy for meningioma, funded.
- 2010-2014 **Pluhar GE**, Principal Investigator. University of Minnesota subcontract. National
Institutes of Health, NIAMS, 5 R01 AR041325. FT-IR microscopy of mineral
structure in osteoporosis, funded.
- 2011-2014 **Pluhar GE**, Principal Investigator. National Institutes of Health, PRORP, W81WH-
09-OR090480,. Improved pre-clinical model for orthopaedic injury, funded.
- 2011-2013 **Pluhar GE**, Principal Investigator. University of Minnesota subcontract. National
Institutes of Health. Treatment of cerebral edema using ventricular therapy,
funded.
- 2011-2013 **Pluhar GE**, Principal Investigator. University of Minnesota Comparative Medicine
Signature Program Grant. Immunotherapy for Meningiomas: A Prospective,
Controlled Clinical Trial, funded.
- 2011 **Pluhar GE**, co-Principal Investigator. National Institutes of Health, CNBT, R01
CA166209, Applying Innovations in Immunotherapy to Meningioma. Submitted
July 2011, not funded.
- 2012-2014 **Pluhar, GE**, co-Investigator. National Institutes of Health, SBIR/STTR.
Nanoparticles and nanocapsules for glioma targeting, funded.
- 2012 **Pluhar, GE**, Principal Investigator. American Kennel Club Canine Health Foundation
OAK Grant. Immunotherapy for Meningiomas: A Prospective, Controlled
Clinical Trial. Submitted May 2012, not funded.
- 2012-2013 **Pluhar GE**, co-Principal Investigator. UMN CVM Small Companion Animal
Research Grant. Effect of interlocking use for fracture fixation in skeletally
immature animals, funded.
- 2012-2013 **Pluhar GE**, Principal Investigator. University of Minnesota subcontract. National
Institutes of Health. User preference evaluation of RVOT system in swine,
funded.

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2012-2013 **Pluhar GE**, co-Principal Investigator. Invibio Biomaterials Solutions contract. Evaluation of Tibial Osteotomy Repair using an Intramedullary Nail Fixation System in an Ovine Model, funded.

2013 **Pluhar GE**, co-Principal Investigator. American Brain Tumor Association, Translational Grant. Translating Canine Meningioma Immunotherapy to Human Clinical Trials. Not funded.

2013 **Pluhar GE**, co-Investigator. Department of Defense, Peer Reviewed Orthopaedic Idea Development Award, W81XWH-13-PRORP-IDA. Improving skin durability and attachment in amputated limb through innovative tissue and cell-based approaches. Not funded.

2013 **Pluhar GE**, Principal Investigator. National Canine Cancer Foundation grant,. Investigation of methylation status in dogs with glioma treated with temozolomide. Not funded.

2013 **Pluhar GE**, Principal Investigator. CVM Comparative Medicine grant. Investigation into a mechanism of immunosuppression by canine glioma cells. Not funded.

2014-2016 **Pluhar GE**, co-Principal Investigator. Department of Defense, PRORP Translational Research Partnership Award, W81XWH-12-PROPRP. Optimization of Soft Tissue Management, Spacer Design, and Grafting Strategies for Large Segmental Bone Defects Using the Chronic Caprine Tibial Defect Model, funded.

2014-2016 **Pluhar GE**, Principal Investigator. American Kennel Club/Canine Health Foundation established investigator award. Immunotherapy for Meningiomas: A Prospective, Controlled Clinical Trial, funded.

2014 **Pluhar GE**, Principal Investigator. National Canine Cancer Foundation grant. -----
---(b)(4)----- for Canine Hemangiosarcoma, funded.

Scientific Presentations and Invited Lectures:

1. Ornithine decarboxylase form interconversion. Poster Presentation, XIth International Congress of Biochemistry, Toronto, Canada, May 4, 1979.
2. Cyclic combination chemotherapy. Continuing Education Seminar, Inland Empire Veterinary Medical Association, Spokane, Washington, April 21, 1991.
3. Dental diseases and therapeutics (lecture and laboratory). Japanese Summer Program, College of Veterinary Medicine, Washington State University, Pullman, Washington, 1992.

4. Dental diseases and therapeutics (lecture and laboratory). Japanese Summer Program, College of Veterinary Medicine, Washington State University, Pullman, Washington, 1993.
5. Humeral fractures. Washington State Annual Conference for Veterinarians, Washington State University, Pullman, Washington, March 28, 1994.
6. Osteochondroses of the canine forelimb -- Including Fragmented Coronoid Process and Ununited Anconeal Process. Washington State Annual Conference for Veterinarians, Washington State University, Pullman, Washington, March 28, 1994.
7. Dental diseases and therapeutics (lecture and laboratory). Japanese Summer Program, College of Veterinary Medicine, Washington State University, Pullman, Washington, 1994.
8. Canine craniodorsal coxofemoral luxation. The Waltham Forum, Video for Small Animal Practitioners, volume 6, no. 3, 1994.
9. Achondrogenesis in an Akita: A spontaneous mutation. 10th Meeting of the International Veterinary Radiology Society, Philadelphia, PA, August 18, 1994.
10. Effects of acute, unilateral transverse venous sinus occlusion on intracranial pressure in normal dogs. 29th Annual Scientific Meeting of the American College of Veterinary Surgeons, Crystal City, VA, October 16, 1994.
11. Meniscal damage and meniscectomy. Washington State Annual Conference for Veterinarians, Washington State University, Pullman, Washington, March 1995.
12. Lateral release and medial joint capsular modification of the patellofemoral joint using the holmium:YAG laser. Poster Presentation, 43rd Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, February 10, 1997.
13. Three methods of tendon attachment to an allograft/endoprosthetic composite of the proximal femur in an in vivo canine model: Radiographic and force plate analysis over nine months. 9th International Symposium of the International Society of Limb Salvage, New York, NY, September 12, 1997.
14. Three methods of tendon attachment to an allograft/prosthetic composite of the proximal femur in an in vivo canine model. Meeting of the British Orthopaedic Research Society, Cardiff, Wales, September 24, 1997.
15. Comparison of three methods of gluteal tendon attachment to an allograft/endoprosthetic composite in total hip arthroplasty: Nine month radiographic and force plate data. 32nd Annual Scientific Meeting of the American College of Veterinary Surgeons, Orlando, FL, October 18, 1997.

16. Comparison of three methods of gluteal tendon attachment to an allograft/endoprosthesis composite of the proximal femur in an in vivo canine model. Poster Presentation, 3rd Annual Scientific Meeting of the Connective Tissue Oncology Society, Milan, Italy, November 6, 1997.
17. Acetabular fractures (lecture), Canine interlocking nailing (laboratory). Small Animal Orthopaedics Continuing Education Day on Fracture Fixation, University of Bristol, Langford, Great Britain, March 3-4, 1998.
18. Comparison of three methods of tendon attachment to an allograft/endoprosthesis composite of the proximal femur in an in vivo canine model. 44th Annual Meeting of the Orthopedic Research Society, New Orleans, LA, March 17-18, 1998.
19. Surgical treatment of hip dysplasia. Small Animal Orthopaedics Continuing Education Day on Joint Disease and Surgery, University of Bristol, Langford, Great Britain, June 10, 1998.
20. Comparison of three methods of tendon attachment to an allograft/endoprosthesis composite of the proximal femur in an in vivo canine model. 1st Annual Department of Veterans Affairs Rehabilitation Research and Development National Meeting, Washington D.C., October 1-3, 1998.
21. Comparison of three methods of gluteal tendon attachment to an allograft/endoprosthesis composite during total hip replacement. 33rd Annual Scientific Meeting of the American College of Veterinary Surgeons, Chicago, Illinois, October 6-11, 1998.
22. The effect of rhBMP-2 on femoral reconstructions with intercalary allografts – preliminary results. 4th Annual Scientific Meeting of the Connective Tissue Oncology Society, Vancouver, B.C., November 6, 1998.
23. The effect of rhBMP-2 on femoral reconstructions with intercalary allografts. 45th Annual Meeting of the Orthopedic Research Society, Anaheim, CA, February 2, 1999.
24. Hip reconstruction with an allograft/endoprosthesis composite in dogs: Long term results. 45th Annual Meeting of the Orthopedic Research Society, Anaheim, CA, February 3, 1999.
25. The effect of rhBMP-2 on femoral reconstructions with intercalary allografts. 10th Symposium of the International Society of Limb Salvage, Cairns, Australia, April 12, 1999.
26. Comparison of three methods of gluteal tendon attachment to an allograft/endoprosthesis composite during total hip replacement. 11th Annual Colloquium on Aging, University of Wisconsin-Madison, April 22, 1999.
27. Comparison of three methods of tendon attachment to an allograft/endoprosthesis composite of the proximal femur in an in vivo canine model. 4th Annual Combined Meeting of the Musculoskeletal Tumor Society, Washington D.C., May 9, 1999.

28. Augmentation of femoral reconstructions with intercalary allografts using bone morphogenetic protein. 34th Annual Scientific Meeting of the American College of Veterinary Surgeons, San Francisco, CA, October 2, 1999.
29. Small Animal Interlocking Nail Fracture Repair: Special Applications (lecture) and Laboratory. 27th Annual Surgical Forum of the American College of Veterinary Surgeons Symposium, San Francisco, CA, October 2, 1999.
30. Small Animal Interlocking Nail Fracture Repair: Lecture and Laboratory. 61st Annual Conference for Veterinarians, Colorado State University, Fort Collins, CO, January 8, 2000.
31. Comparison of three methods of gluteal tendon attachment to an allograft/endoprosthetic composite during total hip replacement. 1st Annual Phi Zeta Research Day, Colorado State University, Fort Collins, CO, January 29, 2000.
32. Effect of rhBMP-2 on femoral reconstruction using intercalary allografts. 1st Annual Phi Zeta Research Day, Colorado State University, Fort Collins, CO, January 29, 2000.
33. Coxofemoral Luxation. Joint Stabilization Operative Techniques Continuing Education Course, Colorado State University, Fort Collins, CO, August 24-25, 2000.
34. Small Animal Interlocking Nail Fracture Repair: Lecture and Laboratory. 62nd Annual Conference for Veterinarians, Colorado State University, Fort Collins, CO, January 6, 2001.
35. Small Animal Interlocking Nail Fracture Repair: Lecture and Laboratory. Continuing Education Course, Colorado State University, Fort Collins, CO, April 20, 2001.
36. Cruciate Disease – Mechanics, Genetics, Athletics. 11th Annual Symposium of the American College of Veterinary Surgeons, Chicago, IL, October 13, 2001.
37. Recent Innovations in Small Animal Orthopedics – Total hip Replacement. 63rd Annual Conference for Veterinarians, Colorado State University, Fort Collins, CO, January 5, 2002.
38. The History of Canine Total Hip Replacement. 2002 SAVMA Symposium, Colorado State University, Fort Collins, CO, March 16, 2002.
39. Small Animal Interlocking Nail Fracture Repair: Lecture and Laboratory. Continuing Education Course, Colorado State University, October 4, 2002.
40. Surgical Management of Elbow Dysplasia. 12th Annual Symposium of the American College of Veterinary Surgeons, San Diego, CA, October 17, 2002.
41. Elbow Dysplasia: Diagnosis and Treatment. 64th Annual Conference for Veterinarians, Colorado State University, Fort Collins, CO, January 12, 2003.

42. Comparison of The Model 11 versus Model 22 Interlocking Nailing Systems to Stabilize Mid-diaphyseal Tibial Fractures. Poster Presentation. 4th Annual Phi Zeta Research Day, Colorado State University, Fort Collins, CO, January 28, 2003.
43. Comparison of One versus Two Distal Screws in 8mm Interlocking Nails to Stabilize Distal Femoral Fractures. 4th Annual Phi Zeta Research Day, Colorado State University, January 28, 2003.
44. Comparison of OP-1 Carriers for Healing Of Tibial Diaphyseal Defects in an Ovine Model. 4th Annual Phi Zeta Research Day, Colorado State University, January 28, 2003.
45. Comparison of OP-1 Carriers for Healing of Tibial Diaphyseal Defects in an Ovine Model. 49th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, February 2, 2003.
46. Tibial Defect Model in Sheep. Large Animal Resident Rounds, University of Minnesota, June 24, 2004.
47. Panel discussion on total hip replacements. 14th Annual Symposium of the American College of Veterinary Surgeons, Denver, CO, October 9, 2004.
48. Study of retrieved canine-cemented total hip implants. 14th Annual Symposium of the American College of Veterinary Surgeons, Denver, CO, October 9, 2004.
49. Orthopedic applications of mesenchymal stem cells. 14th Annual Symposium of the American College of Veterinary Surgeons, Denver, CO, October 9, 2004.
50. Delivery of osteogenic protein-1 in tricalcium phosphate cement: An ovine tibial ostectomy study. 1st Annual Twin Cities Orthopaedic Science Workshop, Hennepin County Medical Center Seminar on Orthopedic Trauma, Minneapolis, MN, November 13, 2004.
51. Interlocking nails for small animal fracture fixation. 108th Annual meeting of the Minnesota Veterinary Medical Association, Saint Paul, MN, February 3, 2005.
52. Treatment of proximal femoral osteosarcoma with allograft-prosthetic composites. 32nd Annual conference of the Veterinary Orthopedic Society, March 7, 2005.
53. External Skeletal Fixation – Nomenclature and Biomechanics. 142nd Annual meeting of the American Veterinary Medical Association. Minneapolis, MN. July 18, 2005.
54. Biostimulation of Fracture Healing. 15th Annual Symposium of the American College of Veterinary Surgeons, San Diego, CA. October 28, 2005.
55. Diagnosis and Treatment of Iliopsoas Injuries. 15th Annual Symposium of the American College of Veterinary Surgeons, San Diego, CA. October 29, 2005.

56. Importance of Periosteal Removal on Ovine Critical Size Defect Healing. 2nd Annual Twin Cities Orthopaedic Science Workshop, Hennepin County Medical Center Seminar on Orthopedic Trauma, Minneapolis, MN, November 19, 2005.
57. Biomechanics of Canine Interlocking Nailing. 109th Annual Meeting of the Minnesota Veterinary Medical Association, Duluth, MN, February 4, 2006.
58. Canine Femoral Fracture Repair with Interlocking Nailing. 109th Annual Meeting of the Minnesota Veterinary Medical Association, Duluth, MN, February 4, 2006.
59. Results and Complications of Interlocking Nailing. 109th Annual Meeting of the Minnesota Veterinary Medical Association, Duluth, MN, February 4, 2006.
60. Importance of periosteal removal on critical size defect healing. 2nd Annual World Veterinary Congress and 33rd Annual Meeting of the Veterinary Orthopedic Society, Keystone, CO, February 28, 2006.
61. Clinical use of osteogenic protein-1 in veterinary delayed/non union fractures. 2nd Annual World Veterinary Congress and 33rd Annual Meeting of the Veterinary Orthopedic Society, Keystone, CO, February 27, 2006.
62. Importance of Periosteal Removal on Ovine Critical Size Defect Healing. Poster Presentation. 52nd Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-21, 2006.
63. Clinical use of osteogenic protein-1 in veterinary delayed/non union fractures. Poster Presentation. 16th Annual Symposium of the American College of Veterinary Surgeons, Washington DC. October 7, 2006.
64. Importance of Periosteal Removal on Ovine Critical Size Defect Healing. Poster Presentation. 16th Annual Symposium of the American College of Veterinary Surgeons, Washington DC. October 7, 2006.
65. Is femoral head and neck excision a good option for hip OA? 16th Annual Symposium of the American College of Veterinary Surgeons, Washington DC. October 7, 2006.
66. The use of bone morphogenetic proteins to enhance fracture healing. Grand Rounds, University of Minnesota. November 16, 2006.
67. Postoperative care and complications with TPLOs. UMN CE Course, Saint Paul, MN. November 18, 2006
68. Biomechanics of ILNs UMN CE Course, Saint Paul, MN. November 19, 2006.
69. Instrumentation and application of ILN. UMN CE Course, Saint Paul, MN. November 19, 2006.

70. ILN for repair of specific fractures. UMN CE Course, Saint Paul, MN. November 19, 2006.
71. Clinical outcome with ILN use for fracture repair. UMN CE Course, Saint Paul, MN. November 19, 2006.
72. Biomechanics of ILNs Canadian CE, Simon Fraser University, Vancouver, BC. May 20, 2007.
73. Instrumentation and application of ILN. Canadian CE, Simon Fraser University, Vancouver, BC. May 20, 2007.
74. ILN for repair of specific fractures. Canadian CE, Simon Fraser University, Vancouver, BC. May 20, 2007.
75. Clinical outcome with ILN use for fracture repair. Canadian CE, Simon Fraser University, Vancouver, BC. May 20, 2007.
76. How to write better multiple-choice questions. Best Practice Institute, University of Minnesota, Minneapolis, MN. May 17, 2007.
77. Interactive Small Animal Orthopedic Case. 17th Annual Symposium of the American College of Veterinary Surgeons, Chicago, IL. October 19, 2007.
78. Limb salvage using allografts and allograft-prosthetics. 17th Annual Symposium of the American College of Veterinary Surgeons, Chicago, IL. October 21, 2007.
79. Femoral head and neck ostectomy. 17th Annual Symposium of the American College of Veterinary Surgeons, Chicago, IL. October 21, 2007.
80. Cranial Cruciate Ligament Rupture and TPLO. Course coordinator and laboratory instructor. UMN CE Course, Saint Paul, MN. November 17, 2007.
81. Interlocking Nailing in Small Animal Fractures. Course Coordinator and laboratory instructor. UMN CE course, Saint Paul, MN. November 18, 2007.
82. Biomechanics of ILNs UMN CE Course, Saint Paul, MN. November 18, 2007.
83. Instrumentation and application of ILN. UMN CE Course, Saint Paul, MN. November 18, 2007.
84. ILN for repair of specific fractures. UMN CE Course, Saint Paul, MN. November 18, 2007.
85. Clinical outcome with ILN use for fracture repair. UMN CE Course, Saint Paul, MN. November 18, 2007.

86. Writing better multiple choice examination questions. University of Minnesota Teachers' Talks. February 25, 2008.
87. Tips for writing better multiple choice examination questions. University of Minnesota College of Veterinary Medicine Noon Seminar. April 4, 2008.
88. How to write better multiple-choice questions. Best Practice Institute, University of Minnesota, Minneapolis, MN. May 21, 2008.
89. In defense of translational medicine. University of Minnesota College of Veterinary Medicine 1st Annual CMB Debate. June 2, 2008.
90. Mending broken bones in humans, hounds, and horses: Advances in metals, matrices, and molecular biology. NIH Merck-Merial Veterinary Scholars Symposium, Michigan State University, Lansing, MI. August 1, 2008.
91. Cranial cruciate ligament pathophysiology. Canadian CE course, Toronto, Canada. September 27, 2008.
92. TPLO complications and postoperative care. Canadian CE course, Toronto, Canada. September 27, 2008.
93. Interlocking Nailing in Small Animal Fractures. Course Coordinator and laboratory instructor. Canadian CE course, Toronto, Canada. September 28, 2008.
94. Biomechanics of ILNs. Canadian CE course, Toronto, Canada. September 28, 2008.
95. Instrumentation and application of ILN. Canadian CE course, Toronto, Canada. September 28, 2008.
96. ILN for repair of specific fractures. Canadian CE course, Toronto, Canada. September 28, 2008.
97. Clinical outcome with ILN use for fracture repair. Canadian CE course, Toronto, Canada. September 28, 2008.
98. Clinical trials for dogs with spontaneous glioma. University of Minnesota Comparative Biosciences Seminar, Saint Paul, MN. October 15, 2008.
99. Immunotherapy for dogs with brain tumors: Initial results. University of Minnesota Brain Tumor Program Seminar. Minneapolis, MN. November 17, 2008.
100. Feasibility studies to target brain tumor initiating cells using immunotherapy in dogs with spontaneous glioma. Society for Neuro-Oncology meeting, Las Vegas, NV. November 22, 2008.

101. Effect of Surface Treatment on Bone In-growth into Porous Titanium Using a Canine THA Model. Orthopaedic Research Society Meeting, Las Vegas, NV. February 23, 2009.
102. Tritanium™ induces rapid bone ingrowth in a canine hip arthroplasty model. Orthopaedic Research Society Meeting, Las Vegas, NV. February 24, 2009.
103. Intraarticular hyaluronic acid increases weight bearing in dogs with elbow OA. 35th Annual Meeting of the Veterinary Orthopedic Society, Steamboat Springs, CO. March 3, 2009.
104. Saving Batman with immunotherapy. Mini Medical School, University of Minnesota, Minneapolis, MN. March 16, 2009.
105. Clinical trials for dogs with brain tumors: The Minnesota experience. Society for CNS Interstitial Delivery of Therapeutics Meeting, Cleveland, OH. September 12, 2009.
106. Canine models of orthopaedic diseases. Annual Meeting of the Interurban Orthopaedic Society, Minneapolis, MN. October 1, 2009.
107. Successful submissions: Mastering the research grant proposal process. Analyzing critiques for a successful resubmission. Symposium of the American College of Veterinary Surgeons, Washington DC. October 8, 2009.
108. Fatigue Analysis For Stack Plating. Symposium of the American College of Veterinary Surgeons, Washington DC. October 9, 2009.
109. Tumor responses in dogs with spontaneous astrocytoma and papillary meningioma treated by immunotherapy. Society for Neuro-Oncology Meeting, New Orleans, LA. October 22, 2009.
110. Hyaluronic acid and botulinum toxin for osteoarthritic pain in dogs. CVM Fall Conference, Saint Paul, MN. October 30, 2009.
111. Clinical trials for dogs with brain tumors. CVM Fall Conference, Saint Paul, MN. October 30, 2009.
112. Animal models of brain cancer. Life Science Alley Program – Animal Models of Human Diseases, Saint Paul, MN. November 11, 2009.
113. Creating compelling poster presentations. New Investigators Skills Development Forum, Orthopaedic Research Society, New Orleans, MS. March 8, 2010.
114. Canine brain cancer: Beyond Batman. CVM Research Retreat, University of Minnesota, MN. March 22, 2010.

115. Comparative aspects of brain cancer. Comparative Oncology Group meeting, University of Minnesota, MN. May 13, 2010.
116. Novel treatments for canine brain cancer. Grand Rounds for veterinary technicians, University of Minnesota, MN. August 9 and 12, 2010.
117. Acetabular fractures. World Veterinary Orthopaedic Congress, Bologna, Italy. September 16, 2010.
118. Ulnar osteotomy. World Veterinary Orthopaedic Congress, Bologna, Italy. September 16, 2010.
119. Successful submissions: mastering the research grant proposal process. Analyzing critiques for a successful resubmission. Symposium of the American College of Veterinary Surgeons, Seattle, WA. October 22, 2010.
120. Immunotherapy of spontaneous canine meningioma: A preclinical model. Society for Neuro-Oncology Meeting, Montreal, Canada. November 20, 2009.
121. Acute goat tibial defect model. AFIRM Interim meeting: Synergy of the consortium. Washington DC. December 9, 2010.
122. Chronic goat tibial defect model. AFIRM Interim meeting: Synergy of the consortium. Washington DC. December 9, 2010.
123. Nailing the Interview. Invited lecture, Orthopedic Research Society meeting: Professional development series. Long Beach, CA. January 13, 2011.
124. Minnesota Brain Tumor Clinical Trials. Invited lecture, Annual meeting of the Minnesota Veterinary Medical Association. Minneapolis, MN. February 10, 2011.
125. Meet the Experts Booth. Annual meeting of the Minnesota Veterinary Medical Association. Minneapolis, MN. February 10, 2011.
126. Fracture session: Introductory case. 37th Annual Meeting of the Veterinary Orthopedic Society, Snowmass, CO. March 10, 2011.
127. Clinical Trials for Dogs with Glial Tumors: Beyond Batman. Invited lecture, Neurology Specialty Symposium of the American College of Veterinary Internal Medicine, Denver, CO. June 15, 2011.
128. Bone Regeneration Strategies in a Chronic Caprine Tibial Defect Model. Advanced Technology Applications for Combat Casualty Care, Fort Lauderdale, FL. August 16, 2011.
129. UMN Canine Meningioma Clinical Trial. Grand Rounds, University of Minnesota, September 22, 2011.

130. Dogs with Brain Tumors: Traditional and Non-Traditional Therapies. Invited lecture, Young Scientist Roundtable, Eden Prairie Council for Gifted and Talented, Wayzata, MN. October 4, 2011.
131. Comparative Animal Models of Human Diseases: Translational Medicine. Invited lecture, Lake Forest College, Lake Forest, IL. November 3, 2011.
132. Surgery and Immunotherapy Improves Survival over Surgery Alone for Canine Meningiomas. Society for Neuro-Oncology Meeting, Orange County, CA. November 19, 2011.
133. Development of a chronic caprine tibial defect model. Armed Forces Institute for Regenerative Medicine All Hands meeting, St. Petersburg, FL. February 15, 2012.
134. Canines curing cancer: Transforming brain tumor therapy – Keynote presentation. Neuro-Oncology Symposium: Basic Discovery Accelerating Groundbreaking Brain tumor Therapy, Minneapolis, MN. May 17, 2012.
135. Interlocking Nailing in Small Animal Fractures. Course Coordinator and laboratory instructor. CE course at the Symposium of the American College of Veterinary Surgeons, Washington DC. October 31, 2012.
136. Canines curing cancer: Transforming brain tumor therapy. 2nd Skippy Frank Conference on Comparative Translational Medicine, Menlo Park, CA. February 8, 2013.
137. Development of a chronic caprine tibial defect model. AAOS/OTA/SOMOS/ORS Extremity War Injuries VIII: Sequelae of Combat Injuries, Washington DC. February 12, 2013.
138. Autologous vaccine therapy to control invasive canine meningioma. AANS/CNS 10th Biennial Satellite Tumor Symposium, New Orleans, LA. April 27, 2013.
139. Canine Glioma Clinical Trials Experience at the University of Minnesota. 2nd Bi-Annual Veterinary Neurosurgical Society Symposium, Portland, OR. August 9, 2013.
140. Surgery/immunotherapy improves survival over surgery alone to treat canine meningioma. 2nd Bi-Annual Veterinary Neurosurgical Society Symposium, Portland, OR. August 9, 2013.
141. Characterization of a chronic tibial defect model in goats. Military Health System Research Symposium, Ft. Lauderdale, FL. August 14, 2013.
142. Vaccine immunotherapy for canine meningioma: Clinical and translational aspects. 2nd Neuro-Oncology Symposium, Minneapolis, MN, September 27, 2013.

PLUHAR, G. Elizabeth

143. Vaccination with autologous glioma lysate induces tumor-reactive IgG antibody response and increases survival in dogs with glioma. 2nd Neuro-Oncology Symposium, Minneapolis, MN, September 27, 2013.
144. Immunotherapy of canine meningioma. Symposium of the American College of Veterinary Surgeons, San Antonio, TX. October 25, 2013.
145. Surgery and immune/gene therapy for canine gliomas. Symposium of the American College of Veterinary Surgeons, San Antonio, TX. October 25, 2013.
146. Imaging of brain tumors. Symposium of the American College of Veterinary Surgeons, San Antonio, TX. October 26, 2013.
147. Canines Curing Cancer: Treatments for Man's Best Friend Leading to Help for Humans. University of Minnesota MinneCollege, Scottsdale, AZ. February 22, 2014.
148. Perspectives on Ethics of Animal Use, RAM/PAM Club Discussion Series, University of Minnesota, St. Paul, MN. April 1, 2014.
149. Spontaneous GBM in a research macaque, All CVM Case Discussion Series, University of Minnesota, St. Paul, MN. April 16, 2014.

Student and Resident Advising
Washington State University:

Senior Paper, -----(b)(6)-----

Senior Paper, -----(b)(6)-----

Senior Paper, -----(b)(6)-----

American Association of Animal Hospitals, Student Chapter, 1992-1994

Colorado State University:

----(b)(6)----, SA surgery resident, M.S. co-advisor 1999–2002, M.S. awarded May 2002, Diplomate ACVS 2003

----- (b)(6) -----, M.S. co-advisor 2000–2002, M.S. awarded August 2002

---(b)(6)---, Ph.D. committee member 2000–2003, Ph.D. awarded Spring 2003

----- (b)(6) -----, SA surgery resident, M.S. committee member 2000–2003, awarded Spring 2003, Diplomate ACVS 2004

----(b)(6)----, Ph.D. committee member 2001–2003, Ph.D. awarded August 2002

PLUHAR, G. Elizabeth

----(b)(6)----, M.S. committee member 2001–2003, M.S. awarded Spring 2003

----- (b)(6)----- D.V.M., M.S. major advisor 2001-2003, awarded Spring 2004

----- (b)(6)-----, SA surgery resident, M.S. major advisor 2001-2004, awarded Spring 2004, Diplomate ACVS 2005

----- (b)(6)-----, M.S. committee member 2002–2003, M.S. awarded Summer 2003

University of Minnesota:

----(b)(6)---- M.S., D.V.M., M.S. major advisor, 2003-2006, awarded June 2006, Diplomate ACVS 2007

----(b)(6)--- D.V.M., M.S. major advisor, 2004-2007, did not complete degree, Diplomate ACVS 2009

----(b)(6)---- D.V.M., M.S. major advisor, 2005-2008, awarded September 2010, Diplomate ACVS 2010

----(b)(6)---- D.V.M., M.S. major advisor, 2006-2009, Diplomate ACVS 2010

----- (b)(6)----- D.V.M., M.S. committee member, 2005-2007, awarded August 2007

----- (b)(6)-----, Ph.D. committee member, 2006-2010, awarded April 2010

----- (b)(6)-----, D.V.M., Ph.D. committee member, 2007-2011, awarded May 2011, resident advisor, 2009-2011

----(b)(6)----, D.V.M./Ph.D. major advisor, 2007-2011

----- (b)(6)-----, D.V.M., Ph.D. major advisor, 2008-2014

----- (b)(6)-----, D.V.M., Ph.D. major advisor, 2008-2014

----(b)(6)----, D.V.M. 2009, faculty and research project mentor

----- (b)(6)-----, D.V.M., Residency and research project mentor, 2008-2011

---(b)(6)---, D.V.M., Residency and research project mentor, 2010-2014

----- (b)(6)-----, Ph.D., Post-doctoral traineeship mentor, 2011-2013

----- (b)(6)-----, M.D./Ph.D. candidate, Research project mentor, 2011-2013

----(b)(6)----, D.V.M., Research project mentor, 2012-2015

---(b)(6)---, M.D., Neurosurgery residency project mentor, 2012-2013

PLUHAR, G. Elizabeth

----- (b)(6) -----, D.V.M. student, Summer Scholar mentor and research advisor, 2013

----- (b)(6) -----, D.V.M., Residency and research project mentor, 2013-2016

----- (b)(6) -----, D.V.M., Research project mentor, 2013-2016

COMMITTEES:

Colorado State University:

Departmental:

Departmental Reorganization Steering Committee, 2000

Resident Graduate Committee, 2000-2003

Scholarship and Awards Committee, 2001-2003

Veterinary Teaching Hospital:

Central Supply/Materials Management Committee, 2000-2003

University of Minnesota:

University:

Infrastructure Task Force, Saint Paul campus, 2005

Clinical Research Advisory Board, 2005-2007

Faculty Senate, 2012-2016

Research Animal Resources User Group, 2013

Invited presenter, University of Minnesota Foundation Discovery Showcase, 2013

Executive Committee, Brain Tumor Program, 2013

Collegiate:

Admissions and Scholastic Standing, 2004-2008

VMED Program Advisory Committee, 2005-2010

VMED PAC Task Force, 2005

Clinical Investigation Center Steering Committee, Chair, 2005-2009

MRI Work Group, Jul 2005 - Jan 2006

PLUHAR, G. Elizabeth

Focus Group for Research, Feb 2005 - Jun 2007

Associate Dean of Research Search Committee, Jul 2006 - Apr 2007

CVM Dean Search Committee, Jul 2007 - Jul 2008

Graduate Programs Education Strategic Planning committee, Jan 2008 – Mar 2009

VBS Chair Search Committee, Sep 2008 - Dec 2008 (committee suspended)

Administrative Review Committee, 2009

Research Committee, Jul 2009 – Jul 2012

CVM representative, Director for the Institute for Engineering and Medicine Search Committee, October 2010-present

College Representative to meet with President Kaler during the Campus Crawl, 2011

Poster judge, Musculoskeletal Training Grant Combined Retreat, Silverwood Park, St. Anthony, MN, 2011

Poster judge, Points of Pride Research Days, College of Veterinary Medicine, University of Minnesota, 2011

Reviewer, Small Animal Companion Research Grants, College of Veterinary Medicine, University of Minnesota, 2009-2012

Poster judge, Points of Pride Research Days, College of Veterinary Medicine, University of Minnesota, 2012

Departmental:

Ophthalmology Search Committee, Sept 2003 - Feb 2005

Merit Review, Research and Scholarship Committee, 2004-2006

Orthopedic Surgeon Search Committee, Feb 2005 - Jun 2006

Small Animal Surgery Resident Search Committee, Chair, 2006-2011, member 2011-present

Graduate Faculty – Comparative and Molecular Biosciences, senior member

Graduate Faculty – Veterinary Medicine, senior member

Residency and Postgraduate Training Committee, 2006-2009

Soft Tissue Surgeon Search Committee, Chair, Jun 2006 - Dec 2006

Merit Review Reform Committee, 2006-2007

PLUHAR, G. Elizabeth

Promotion and Tenure Committee, 2009-2012, Chair, 2010-2012

Medical Imaging Faculty Search Committee, 2011

Small Animal Surgeon Search Committee, 2013

Small Animal Surgery Resident Search Committee, Chair, 2013

Residency and Postgraduate Training Committee, 2013

External Academic and Administrative Service:

1999 Surgical Symposium Resident's Forum Committee, ACVS

2000 Surgical Symposium Resident's Forum Committee, ACVS

2001-2003 Program Director, ACVS, Small Animal Surgery, Colorado State University

2001-2004 Resident Credentialing Committee, ACVS

2002 Surgical Symposium Seminar Chair, Elbow Dysplasia, ACVS

2002-2003 Research Awards Committee, VOS

2004-present Reviewer, Journal of Orthopaedic Research

2004 Surgical Symposium Seminar Chair, Musculoskeletal Tissues, ACVS

2005-present Reviewer, Veterinary Medicine

2005-present Reviewer, Journal of Biomedical Materials Research

2005 Surgical Symposium Seminar Chair, Musculoskeletal Tissues, ACVS

2005-2007, Research Grant Committee, grant reviewer, Musculoskeletal Transplant
2010-2012 Foundation

2005-2007 Item Writer, National Board of Veterinary Medical Examiners

2005-present Reviewer, Veterinary Surgery

2004-2009 Program Director, Small Animal Surgery, University of Minnesota, ACVS

2007 Surgical Symposium Seminar Chair, Joint Salvage, ACVS

2007-2010 Research Committee, American College of Veterinary Surgeons
Chair (2010)

2008 Surgical Symposium Seminar Chair, Knee Surgery I, ACVS

PLUHAR, G. Elizabeth

2008 Surgical Symposium Seminar Chair, Knee Surgery II, ACVS

2008-2012 Membership Committee, Orthopaedic Research Society
Vice Chair 2009-2010, Chair 2010-2011, ex officio Chair 2011-2012

2010-2011 Board of Directors, Orthopedic Research Society

2009-2010 Volunteer Appointment Committee, Orthopaedic Research Society

2008-2011 Scientific Program, Veterinary Orthopedic Society
Assistant Chair (2009-2010), Chair (2010-2011)

2008-2011 Board of Directors, Veterinary Orthopedic Society

2009 Co-Chair, Fall Small Animal Symposium, University of Minnesota

2009-2010 Planning Committee, World Veterinary Orthopedic Conference

2009-present Reviewer, Veterinary and Comparative Orthopaedics and Traumatology

2009- present Reviewer, American Journal of Veterinary Research

2011-present Editorial Board, ISRN Orthopedics

2011 Chair and Organizer, Professional Development Series, Orthopedic Research Society

2011-2014 Organizing Committee, World Veterinary Orthopedic Conference

2012-2013 Organizing Committee, International Conference One Medicine One Science

2012-2013 Organizing Committee, 2nd Neuro-Oncology Symposium

2013 AO Research Review Committee, grant reviewer, AO Research Foundation

2013 Leader, Task group, New Animal Models of Bone Repair, American Society for Testing
and Materials (ASTM)

2013-2014 Chair, Neurosurgery session, World Veterinary Orthopaedic Congress

2013 Chair, Brain Surgery session, Surgical Symposium ACVS

2013-present Program Director, University of Minnesota, Small Animal Surgery ACVS

2013 Nominee, Cellular, Tissue and Gene Therapies Advisory Committee, Food and Drug
Administration

PLUHAR, G. Elizabeth

2013 Nominee, Secretary-Elect/Secretary and Board of Directors, Orthopaedic Research Society

2014 Member, Cellular, Tissue and Gene Therapies Advisory Committee, Food and Drug
Administration